What is claimed is:

1. A glass bulb for use in a cathode-ray tube for a projection TV for forming a red or green image, comprising a face part having a fluorescent film, wherein

the face part includes: a light-transmitting region that contains no contaminant having an effective diameter W of at least a defective reference value ϕ; and a region extending from the surface of the fluorescent film in the light-travel direction, which is located within a reference depth TS and only contains a contaminant having an effective diameter W of at most a measurement reference value ϕ', and

the defective reference value ϕ is from 0.15 mm to 0.35 mm; the measurement reference value ϕ' is from 0.07 mm to 0.15 mm; and the reference depth TS is from 2.6 mm to 4.0 mm.

2. A glass bulb for use in a cathode-ray tube for forming a blue image and for use in combination with the glass bulb according to claim 1, comprising a face part whose light-transmitting region contains no contaminant having an effective diameter W of at least a defective reference value ϕ, wherein

the defective reference value ϕ is from 0.15 mm to 0.35 mm.

3. A glass bulb for use in a cathode-ray tube for a projection TV for forming a red or green image, comprising a face part having a fluorescent film, wherein

the face part includes: a light-transmitting region that contains no

contaminant having an effective diameter W of at least a first reference value $\phi 1$; and a region extending from the surface of the fluorescent film in the light-travel direction, which is located within a reference depth TS and contains no contaminant having an effective diameter W of at least a second reference value $\phi 2$, and

the first reference value $\phi 1$ is from 0.15 mm to 0.3 mm; the second reference value $\phi 2$ is from 0.10 mm to 0.15 mm; and the reference depth TS is from 2.6 mm to 4.0 mm.

4. A glass bulb for use in a cathode-ray tube for a projection TV for forming a blue image, comprising a face part having a fluorescent film, wherein

the face part includes: a light-transmitting region that contains no contaminant having an effective diameter W of at least a third reference value $\phi 3$; and a region extending from the surface of the fluorescent film in the light-travel direction, which is located within a reference depth TS and contains no contaminant having an effective diameter W of at least a fourth reference value $\phi 4$, and

the third reference value $\phi 3$ is from 0.25 mm to 0.35 mm; the fourth reference value $\phi 4$ is from 0.2 mm to 0.3 mm provided that $\phi 4$ is smaller than $\phi 3$; and the reference depth TS is from 2.6 mm to 4.0 mm.

5. A method of manufacturing a glass bulb for use in a cathode-ray tube for a projection TV, comprising:

a first step of determining the size of a contaminant in a light-

transmitting region of a face part of the glass bulb and determining the position of the contaminant in a two-dimensional coordinate system;

a second step of searching, in another coordinate direction, the contaminant located in the two-dimensional coordinate system, in order to determine the depth position of the contaminant in a three-dimensional coordinate system; and

a third step of determining the use of the face part based on the determined depth position.

6. A method of manufacturing a glass bulb for use in a cathode-ray tube for a projection TV, comprising:

a first step of approximately determining the size of a contaminant in a light-transmitting region of a face part of the glass bulb and determining the position of the contaminant in a two-dimensional coordinate system;

a second step of searching, in another coordinate direction, the contaminant located in the two-dimensional coordinate system, in order to determine the depth position of the contaminant in a three-dimensional coordinate system and to precisely determine the size of the contaminant; and

a third step of determining the use of the face part based on the determined depth position and the precisely determined size.